

WHAT IS CLAIMED IS:

1. A percutaneous insertion system, comprising:

5 a needle assembly having a proximal end, a distal end, and a passageway extending therebetween, the distal end comprising an elongated needle for percutaneous entry into a body vessel for withdrawing a body fluid therefrom, and the proximal end comprising a needle hub;

10 a needle hub attachment assembly having a proximal end, a distal end, and a passageway extending therebetween, the distal end of said needle hub attachment assembly sized and configured for leak-free engagement with said needle hub, the needle hub attachment assembly comprising a chamber communicating with said needle assembly for receiving said body fluid; and

15 an assembly comprising a hemostatic segment, said assembly having a proximal end, a distal end, and a passageway extending therebetween, said hemostatic segment positioned in said passageway and having an opening permitting passage of a wire guide therethrough, said distal end sized and configured for leak-free engagement with the proximal end of said needle hub attachment assembly, said passageway aligned with said needle assembly passageway and said needle hub attachment assembly passageway to form a path
20 for insertion of said wire guide into said body vessel.

2. The percutaneous insertion system of claim 1, wherein the assembly comprising a hemostatic segment comprises a wire guide inserter.

3. The percutaneous insertion system of claim 1, wherein the assembly comprising a hemostatic segment comprises a wire guide holder.

25 4. The percutaneous insertion system of claim 3, wherein said wire guide holder is pre-loaded with a wire guide.

5. The percutaneous insertion system of claim 1, wherein the distal end of said assembly comprising a hemostatic segment tapers to an endhole having a diameter substantially the same as the diameter of the wire guide.

30 6. The percutaneous insertion system of claim 1, wherein the hemostatic segment comprises a valve.

7. The percutaneous insertion system of claim 6, wherein said valve comprises an elastomeric valve.

8. The percutaneous insertion system of claim 6, wherein said valve tapers to an endhole having a diameter substantially the same as the diameter of the wire guide.

9. The percutaneous insertion system of claim 1, wherein the needle hub attachment assembly comprises an elastomeric valve

10. The percutaneous insertion system of claim 9, wherein said tapering distal end of said assembly comprising a hemostatic segment is received in said elastomeric valve of said needle hub attachment assembly.

11. The percutaneous insertion system of claim 1, wherein the needle hub attachment assembly comprises a substantially transparent or translucent outer surface.

12. The percutaneous insertion system of claim 3, wherein the wire guide holder comprises a generally looped configuration, said wire guide holder further comprising fasteners to maintain said holder in the looped configuration.

13. The percutaneous insertion system of claim 1, wherein at least one of said leak-free engagements comprises a luer lock assembly.

14. The percutaneous insertion system of claim 1, wherein at least one of said leak-free engagements comprises a threaded connection.

15. The percutaneous insertion system of claim 2, wherein the wire guide inserter has a reverse flared tip, and wherein the proximal end of said needle hub attachment assembly is shaped to conform to said reverse flare to comprise said leak-free engagement.

16. The percutaneous insertion system of claim 15, wherein the distal end of said needle hub attachment is connectable to a catheter

17. A percutaneous insertion system, comprising:

a needle assembly having a proximal end, a distal end, and a passageway extending therebetween, the distal end comprising an elongated needle for percutaneous entry into a body vessel for withdrawing a body fluid therefrom, the proximal end comprising a hub, said needle assembly including a hemostatic segment; and

an assembly comprising a hemostatic segment, said assembly having a proximal end, a distal end, and a passageway extending therebetween, said distal end sized and configured for leak-free engagement with the proximal end of said needle assembly, said passageway aligned with said needle assembly passageway to form a path for insertion of a wire guide into said body vessel, said hemostatic segment positioned in said passageway and having an opening permitting passage of said wire guide therethrough.

18. The percutaneous insertion system of claim 17, wherein the assembly comprising a hemostatic segment comprises a wire guide inserter.

19. The percutaneous insertion system of claim 17, wherein the assembly comprising a hemostatic segment comprises a wire guide holder.

20. The percutaneous insertion system of claim 17, wherein said needle assembly includes a chamber for receiving said body fluid, said chamber being formed of a material having a substantially transparent or translucent outer surface.

21. The percutaneous insertion system of claim 17, wherein at least one of said hemostatic segments comprises an elastomeric valve.

22. The percutaneous insertion system of claim 21, wherein said valve tapers to an endhole having a diameter substantially the same as the diameter of the wire guide.

23. The percutaneous insertion system of claim 18, wherein the wire guide inserter has a reverse flared tip, and wherein the proximal end of said needle hub attachment assembly is shaped to conform to said reverse flare to comprise said leak-free engagement.

24. The percutaneous insertion system of claim 23, wherein the distal end of said needle hub attachment is connectable to a catheter

25. A fluid withdrawal system, comprising:

a needle assembly having a proximal end, a distal end, and a passageway extending therebetween, the distal end comprising an elongated needle for percutaneous entry into a body vessel for withdrawing a body fluid therefrom, and the proximal end comprising a needle hub;

a needle hub attachment assembly having a proximal end, a distal end, and a passageway extending therebetween, the distal end of said needle hub attachment assembly sized and configured for leak-free engagement with said needle hub, the needle hub attachment assembly comprising a chamber communicating with said needle assembly for receiving said body fluid; and

a withdrawal mechanism having a proximal end, a distal end and a fluid receptacle therebetween, said proximal end comprising an aspirator for withdrawing said body fluid through said passageways into said receptacle, said distal end being sized and configured for leak-free engagement with the proximal end of said needle hub attachment assembly.

26. The fluid withdrawal system of claim 25, wherein said withdrawal mechanism comprises a syringe, and said aspirator comprises a plunger.

27. The fluid withdrawal system of claim 25, wherein the needle hub attachment assembly comprises an elastomeric valve

28. The fluid withdrawal system of claim 25, wherein the needle hub attachment assembly comprises a substantially transparent or translucent outer surface.